Akshat Arvind

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Education

Indiana University **Jan. 2021 – Present**
Master of Science in Data Science (GPA : 3.8) *Bloomington, Indiana*

APJ Abdul Kalam Technical University **Aug. 2013 – Jun. 2017**
Bachelor of Technology in Electronics and Communication Engineering *Delhi NCR, India*

Relevant Coursework

- Applied Algorithms
- Artificial Intelligence
- Cloud Computing
- Management of Big Data
- Deep Learning
- Software Engineering

Experience

Infosys **Dec 2018 – Jul 2020**
Software Engineer *Bangalore, India*

- Developed a service for a Network monitoring solution to automate the consumption of device information XMLs from upstream network inventory component which updated the database with latest entries.
- The deployed service hosted on Oracle WebLogic Server was critical in reducing the go-live time for a customer's device on the network monitoring solution by 70 %.
- Worked with the design team to integrate the service with the downstream network monitoring component which ran daily monitoring of the client's network using updated device entries from the database.
- Used Python and Shell scripts to automate tasks and scheduled cron jobs on the network monitoring component which helped in reducing the fault resolution time by 40 %.

FarEye **Apr 2018 – Nov 2018**
Technical Engineer Intern *Delhi NCR, India*

- Assisted in development of ETA & visibility feature for the digital logistics SaaS product.
- Collaborated with team members using JIRA bug tracking system to keep track of future sprints and releases.
- Worked with process team in designing a process workflow which could be customized for each customer's Last mile delivery requirements.
- Utilized Android Studio as a development environment in order to visualize the application and test new features.

Projects

Generating Synthetic Functional Tissue Units using GANs | *Python, PyTorch, Deep Learning* **June 2021**

- Worked on this project as a Research Assistant at Indiana University for the HuBMAP consortium.
- Successfully trained a conditional GAN which can generate synthetic FTUs of kidney using just label maps as input.
- Implemented parallel processing using multiple GPUs to speed up model training time by 60 %.
- Evaluated the GAN results using evaluation metrics like structural similarity index measure and frechet inception distance.

Mountain Ridge Detector | *Python, Aritifical Intelligence, Viterbi Algorithm* **March 2021**

- Implemented a code using Viterbi Algorithm which can detect and trace the mountain ridge lines in an image.
- Further improved detection in dull mountain line images by adding a human input factor along with viterbi.
- The final code was able to detect mountain ridge lines in 95 % of test images.

Technical Skills

Languages: Python, R, Java, HTML/CSS, JavaScript
Database Technologies: PostgreSQL, MySQL, Redis, MongoDB
Visualization: SeaBorn, Matplotlib, D3.js, Tableau
Tools/Frameworks/APIs: PyTorch, Scikit-Learn, Scipy, Apache Spark
DevOps: Amazon Web Services, Google Cloud Platform